

## DOCUMENT OF ABSTRACT

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[PROBLEMS] To provide an integrated circuit design method realized as a photomask/photomaskless fusion method wherein a photomask trial method and a photomaskless trial method are fused with each other so as to obtain both a merit of the photomask trial method allowing production of trial chips without producing photomasks and a merit of the photomaskless trial method allowing use of pattern information for a trial production as pattern information for a mass production trial. To provide a design assistance program and an integrated circuit design system used in such an integrated circuit design method.

[SOLVING MEANS] A trial integrated circuit is produced based on pattern information for a trial production, without using a photomask, under a common design circumstance which can be utilized in both a photomaskless step of producing an integrated circuit based on pattern information without using a photomask and a photomask step of producing an integrated circuit based on pattern information with using a photomask, with the pattern information for the trial production complying with both the photomaskless step and the photomask step. A common pattern information is prepared by evaluating the trial integrated circuit and by modifying the pattern information for the trial production in accordance with results of the evaluation, if necessary, without being modified. A photomask for a mass production is produced by carrying out a formal conversion of the common pattern information, if necessary.

[SELECTED DRAWING] Fig. 2